

**UNIVERSITY**

Reg. No.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Karunya Institute of Technology & Sciences

(Declared under section-3 of the UGC Act, 1956)

**Supplementary Examination – June – 2017**

**Subject Code : 14CS2044 Duration : 3hrs**

**Subject Name : INTRODUCTION TO SYSTEM**

**ADMINISTRATION Max. Marks : 100**

**ANSWER ALL THE QUESTIONS (5x20=100 Marks)**

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| Q. No. | Sub  Div | Questions | Course  Outcome | Marks |
| 1. | a. | Explain the advantage of X window system when developing your own desktop environment. | CO1 | 10 |
|  | b. | Show the advantage of data redirection using your own examples. | CO2 | 10 |
|  |  | (OR) |  |  |
| 2. | a. | Illustrate the use of the following commands (a) printing from the command line with options (ii) different types of links. | CO2 | 10 |
|  | b. | Demonstrate the use of regular expressions in text processing using 8 different expressions. | CO2 | 10 |
| 3. | a. | Define the following (a) Process (b) Kernel’s role in process management (c) Multitasking (d) fork (e) process states. | CO1 | 10 |
|  | b. | Demonstrate the use of SSH and its applications. | CO3 | 10 |
|  |  | (OR) |  |  |
| 4. | a. | Explain the following commands with your own example sort, uniq, diff, strings, cmp, comm and ispell. | CO1 | 10 |
|  | b. | Compare the difference among the following commands tail, head, wc and strings. | CO1 | 10 |
| 5. | a. | Show how the rpm command can be used to perform the following query, search, install, uninstall, update and checking the signature of a package. | CO2 | 10 |
|  | b. | Illustrate the user add command with minimum of 7 options. | CO2 | 10 |
|  |  | (OR) |  |  |
| 6. | a. | Design an awk filter to count the number of employees whose designation is Sysadmin using the following data  300 Sanjay Sysadmin Technology $7,000 400 Nisha Manager Marketing $9,500 500 Randy DBA Technology $6,000 600 blrkSysadmin Technology $9,000 | CO2 | 10 |
|  | b. | Analyze the user security issue Linux system and how it can be implemented. | CO1 | 10 |
| 7. | a. | Describe the application of the following (i) Shared libraries (ii) Paged memory (iii) Tracking memory usage (iv) Viewing virtual memory information. | CO1 | 10 |
|  | b. | Illustrate the use of the following commands with its options  (a) wget (b) rsync | CO2 | 10 |
|  |  | (OR) |  |  |
| 8. | a. | Give the appropriate commands to perform the following operations  (i) set the ip address 192.168.100.10/24  (ii) set the gateway and dns server address 192.168.100.1  (iii) forward all the outgoing packets to 192.168.100.1 | CO2 | 10 |
|  | b. | Write a shell script to check the utilization of home partition at a specific intervals every day and store the results in a single file. | CO2 | 10 |
|  |  | **Compulsory:** |  |  |
| 9. | a. | Describe the linux boot process. | CO1 | 10 |
|  | b. | List out the applications of systemd daemon. | CO1 | 10 |